IN THE CLAIMS:

All of the claims that remain pending and under consideration in the above-referenced application are presented, pursuant to 37 C.F.R. §§ 1.121(c)(1)(i) and 1.121(c)(3), in clean form below. Please enter these claims as amended and newly submitted. Also attached is a marked-up version of the claims amended herein pursuant to 37 C.F.R. § 1.121(c)(1)(ii).

Please cancel claims 24 through 35 without prejudice or disclaimer.

Please amend the claims as follows:

1. (Twice amended) A method of forming a flip-chip semiconductor die, comprising:

providing at least one flip-chip semiconductor die having an active surface; and

forming at least one stabilizer securable to said active surface so as to protrude from said active surface, said at least one stabilizer being an unitary structure of any desired shape and configured to at least partially stabilize an orientation of said at least one flip-chip semiconductor die when disposed face down over a higher level substrate.

2. The method of claim 1, wherein said forming said at least one stabilizer comprises forming a plurality of stabilizers.

3. The method of claim 2, wherein said forming said plurality of stabilizers comprises forming at least one stabilizer of said plurality of stabilizers adjacent at least one corner of said active surface.

4. The method of claim 2, wherein said forming said plurality of stabilizers comprises forming at least two stabilizers adjacent opposite peripheral edges of said active surface.

5. The method of claim 2, wherein said forming said plurality of stabilizers comprises forming selected ones of said plurality of stabilizers to have a height that defines a substantially consistent die-to-substrate distance.

6. The method of claim 1, wherein said forming said at least one stabilizer comprises forming said at least one stabilizer from photoimageable material.

7. The method of claim 6, wherein said forming said at least one stabilizer comprises forming said at least one stabilizer as at least two superimposed, contiguous, mutually adhered layers of material.

8. The method of claim 1, wherein said providing comprises providing at least one flip-chip semiconductor die having a sealing material on an active surface thereof and wherein said forming comprises forming said at least one stabilizer to be securable to said sealing material.

9. The method of claim 1, wherein said providing comprises providing a semiconductor wafer including a plurality of flip-chip semiconductor dice.

10. The method of claim 1, further comprising adhering said at least one stabilizer to said active surface.

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11. The method of claim 1, wherein said forming said at least one stabilizer comprises applying a layer of insulative material on said active surface and patterning said layer.

12. The method of claim 1, wherein said forming said at least one stabilizer comprises applying a layer of photoresist material on said active surface and patterning said layer.

13. (Previously amended) The method of claim 1, further comprising introducing an encapsulant material between said at least one flip-chip semiconductor die and said substrate.

14. The method of claim 1, wherein said forming said at least one stabilizer comprises positioning said at least one stabilizer on said active surface so as to avoid contact with conductive traces on a carrier substrate.

15. The method of claim 1, further comprising disposing at least one conductive structure on at least one bond pad of said at least one flip-chip semiconductor die.

16. The method of claim 15, wherein said disposing comprises forming a solder bump on said at least one bond pad.

17. (Previously amended) The method of claim 15, wherein said disposing comprises applying one of a conductive pillar, a conductor filled epoxy pillar, and a structure of z-axis elastomer to said at least one bond pad.

18. (Twice amended) A method of fabricating a semiconductor device component, comprising:

providing at least one semiconductor substrate with contact pads on an active surface thereof; and

sequentially forming on said active surface at least one stabilizer of any desired shape having a plurality of superimposed, contiguous, mutually adhered layers of photopolymer, said at least one stabilizer being configured to at least partially stabilize an orientation of the semiconductor device component upon being disposed face down over a higher level substrate.

19. (Twice amended) A method of fabricating a semiconductor device component, comprising:

placing at least one semiconductor substrate having an active surface with contact pads exposed thereon in a horizontal plane;

recognizing a location and orientation of said at least one substrate;

stereolithographically forming on said active surface, between one of said contact pads and a peripheral edge of said at least one substrate, at least one stabilizer of any desired shape comprising at least one layer of an electrically nonconductive semisolid material.

20. (Twice amended) The method of claim 19, further comprising storing data including at least one physical parameter of said at least one substrate in computer memory, and using the stored data in conjunction with a machine vision system to recognize said location and orientation of said at least one substrate and to form said at least one stabilizer thereon.

21. The method of claim 20, further including in computer memory at least one parameter of another semiconductor device component to which said at least one substrate is to be attached.

22. (Twice amended) The method of claim 20, further comprising using stored data, in conjunction with said machine vision system, to selectively form said at least one layer of semisolid material stereolithographically on at least one portion of said active surface of said at least one substrate.

23. The method of claim 20, further including securing said at least one substrate to a carrier prior to placing said at least one substrate in said horizontal plane.

36. (Twice amended) A method for electrically bonding a flip-chip semiconductor device component having a surface and conductive structures protruding from said surface to a substrate having contacts positioned correspondingly to said conductive structures, said method comprising:

forming at least one unitary stabilizer structure of any desired shape configured to be disposed between said surface and said substrate;

inverting and positioning said semiconductor device component on said substrate to contact said conductive structures to corresponding contacts; and

bonding said conductive structures to the corresponding contacts.

37. (Twice amended) The method of claim 36, wherein said forming at least one unitary stabilizer structure comprises forming said at least one unitary stabilizer structure to have a height less than a minimum distance said conductive structures protrude from said surface.

38. (Twice amended) The method of claim 36, wherein said forming at least one unitary stabilizer structure comprises forming said at least one unitary stabilizer structure to space said surface from said substrate a distance greater than a minimum distance at least one of said conductive structures protrudes from said surface.

39. (Twice amended) The method of claim 38, wherein said bonding comprises employing said at least one unitary stabilizer to lengthen at least one of said conductive structures.

40. (Twice amended) The method of claim 36, wherein said forming at least one unitary stabilizer structure comprises configuring said at least one unitary stabilizer structure to

be positioned between a periphery of said surface of said semiconductor device component and said conductive structures.

Please add the following new claims:

-- 41. (New) A method of forming a flip-chip semiconductor die, comprising:

providing at least one flip-chip semiconductor die having an active surface with contact pads exposed thereon;

applying a layer of a partially uncured photopolymer to said flip-chip semiconductor; and

stereolithographically forming on said flip-chip semiconductor, between one of said contact pads and a peripheral edge of said flip-chip semiconductor, at least one stabilizer securable to said active surface so as to protrude from said active surface, said at least one stabilizer being an unitary structure of any desired shape and configured to at least partially stabilize an orientation of said at least one flip-chip semiconductor die when disposed face down over a higher level substrate.

42. (New) The method of claim 41, wherein said forming said at least one stabilizer comprises forming a plurality of stabilizers.

43. (New) The method of claim 42, wherein said forming said plurality of stabilizers comprises forming at least one stabilizer of said plurality of stabilizers adjacent at least one corner of said active surface.

44. (New) The method of claim 42, wherein said forming said plurality of stabilizers comprises forming selected ones of said plurality of stabilizers to have a height that defines a substantially consistent die-to-substrate distance.

45. (New) The method of claim 41, wherein said providing comprises providing a semiconductor wafer including a plurality of flip-chip semiconductor dice.

46. (New) The method of claim 41, further comprising introducing an encapsulant material between said at least one flip-chip semiconductor die and said substrate.

47. (New) The method of claim 41, wherein said forming said at least one stabilizer comprises positioning said at least one stabilizer on said active surface so as to avoid contact with conductive traces on a carrier substrate.

48. (New) The method of claim 41, further comprising disposing at least one conductive structure on at least one bond pad of said at least one flip-chip semiconductor die.

49. (New) The method of claim 48, wherein said disposing comprises forming a solder bump on said at least one bond pad.--